



3 1761 11652024 8

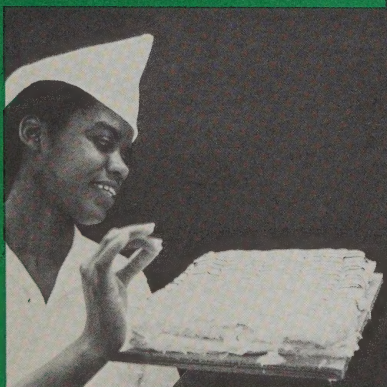
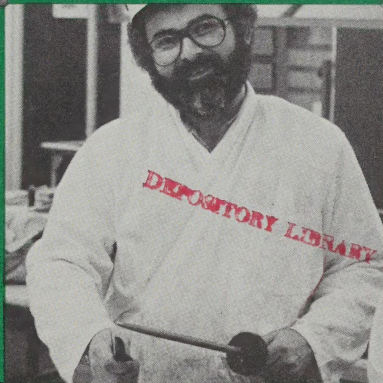
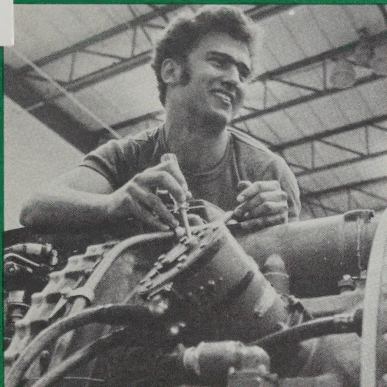
Ministry of

1976
CAZON
DG
- A69

M.D., Minister
Minister

Apprenticeship and You

Government
Publications



Contents

Introduction:	2	Motive Power Trades	
Apprenticeship in Ontario		Regulated	
Construction Trades		Air-cooled and Marine Engine Mechanic:	14
Regulated		Branch 1 – Small Engine Mechanic	14
Brick and Stone Mason	6	2 – Marina and Small Powered	14
Cement Mason	6	Equipment Mechanic	14
Construction Boilermaker	6	3 – Small Engine Mechanic	14
Construction Millwright	6	(Construction)	14
Electrician		4 – Boat Motor Mechanic	14
(Construction and Maintenance)	6	Alignment and Brakes Mechanic	14
Electrician (Domestic and Rural)	6	Auto Body Repairer	14
General Carpenter	6	Automotive Machinist	14
Glazier and Metal Mechanic	6	Automotive Painter	14
Ironworker	7	Farm Equipment Mechanic	14
Lather	7	Fuel and Electrical Systems Mechanic	15
Lineman:		Heavy Duty Equipment Mechanic	15
Branch 1 – Power Lineman	7	Motorcycle Mechanic	15
2 – Construction Lineman	7	Motor Vehicle Mechanic	15
Painter	7	Service Station Attendant	15
Plasterer	7	Transmission Mechanic	15
Plumber	7	Truck-Trailer Repairer	15
Refrigeration and		Service Trades	
Air-conditioning Mechanic	8	Regulated	
Sheet Metal Worker	8	Baker:	
Sprinkler and Fire Protection Installer	8	Branch 1 – Junior Baker	17
Steamfitter	8	2 – Baker	17
Non-regulated		Cook:	
Draftsman (Architectural)	8	Branch 1 – Assistant Cook	17
Drywall and Acoustic Mechanic	8	2 – Cook	17
Terrazzo, Tile, and Marble Setter	8	Dry Cleaner	17
Industrial Trades		Hairstylist:	
Regulated		Branch 1 – Barber	17
Filter (Structural Steel/Platwork)	10	2 – Hairdresser	17
General Machinist	10	3 – Hairstylist	17
Industrial Millwright	10	Radio and TV Service Technician	17
Mould Maker	10	Non-regulated	
Printer:		Butcher	18
Branch 1 – Letterpress (Job Shop)	10	Furrier	18
2 – Lithography (Job Shop)	10	Horticulturist	
3 – Offset Pressman (Plant)	10	(Landscape, Nurseryman)	18
4 – Linotype Operator	10	Retail Meat Cutter	18
5 – Compositor	10	Miscellaneous	
6 – Pressman (Letterpress)	10	Non-regulated Trades	20
7 – Compositor (Phototypesetting)	10	Apprenticeship Branch Offices	
8 – Compositor and Camera		(see back cover)	
Technician	10		
Tool and Die Maker	11		
Non-regulated			
Carpenter (Plant)	11		
Chemical Plant Operator	11		
Draftsman (Mechanical)	11		
Electrician (Plant Maintenance)	12		
Electronics Mechanic			
(Industrial Control)	12		
Oil-Burner Mechanic	12		
Patternmaker	12		
Sheet Metal Worker (Plant)	12		
Welder (Arc and Gas)	12		
Woodworking Machinist			
(Cabinet and Furniture)	12		
Woodworking Machinist (Millwork)	12		

Introduction

What is apprenticeship?

Apprenticeship is the world's oldest formal system of learning. It was skilled craftsmen and their apprentices who, towards the end of the fifteenth century, designed, built, and adorned the famous Sistine Chapel in the Vatican, and over three hundred years later, we find craftsmen and apprentices building horseless carriages, forerunners of the present-day automobile. In fact, skilled tradespeople, by means of the apprenticeship system, have been helping to advance civilization since before the rise of ancient Greece and Rome.

Apprenticeship training has had many famous exponents – Leonardo da Vinci, Henry Ford, Sir Sandford Fleming, to name but three. Nor is apprenticeship confined to men. More and more women are registering as apprentices, not only as hair-stylists and cooks, but also as industrial millwrights and motor vehicle mechanics – in fact, as apprentices in almost any trade you care to mention. For men and women who want long-term jobs that are challenging, interesting, and rewarding, apprenticeship in the skilled trades may be the answer.

Employers, too, are finding that apprenticeship is a wise investment in the future. To meet a growing demand by employers in Ontario, new apprenticeship programs are always being introduced and established programs upgraded. There's no doubt that the fast-paced advance of technology and intense competition in industry are increasing the need for capable, well-trained apprentices.

The Apprenticeship Branch of the Ministry of Colleges and Universities administers Ontario's apprenticeship training programs. If after reading *Apprenticeship and You*, your interest in apprenticeship has been aroused, you may obtain more information by meeting with a training consultant at the Apprenticeship Branch office nearest you. At the end of this booklet, there is a complete list of Apprenticeship Branch offices.

Learn by doing, and earn at the same time!

The best way to learn something is to do it! That's the basis of apprenticeship. Depending on the skilled trade you choose,

the length of your training will vary between two and five years. During that time you will earn while you learn. Your employer will pay you a percentage of the current journeyman's wage. As your productivity improves with increasing skill so will your pay, which, of course, would never be less than Ontario's minimum wage. During your last training period, you could be earning up to 90 per cent of a journeyman's wage.

All but 10 per cent of your apprenticeship program will consist of on-the-job training. The remainder is usually spent at a community college which provides you with the theory and additional instruction that you need to complete your training. *Apprenticeship and You* shows, for each trade, the number of hours you will spend on the job and in the classroom. Also listed for the major trades are the skills you will learn during your apprenticeship.

The Canada Employment and Immigration Commission will usually pay your tuition fees, a basic living allowance, and, if applicable, travel expenses if you are required to attend a community college or similar institution for training away from your job.

Choose your trade

There are well over 200 skilled trades that are formally recognized in Ontario, each with its own apprenticeship training program.

Regulated trades are governed, as the term implies, by Ontario regulations under The Apprenticeship and Tradesmen's Qualification Act. These outline the standards and conditions of training for specific trades.

Non-regulated trades have, as the term suggests, no formal regulations. Training for these trades is often custom-designed to meet specific requirements of particular jobs.

For your convenience, *Apprenticeship and You* describes regulated and non-regulated trades in four categories: construction, industrial, motive power, and service trades. In addition, there is a list of miscellaneous non-regulated trades.

Educational requirements

You are eligible for apprenticeship in most trades if you are at least 16 years of age and have completed Grade 10 of a secondary school program or its equivalent. Regulations for some trades require apprentices to have a minimum of Grade 8 or Grade 9; some unions, regardless of regulations, require Grade 12 and may even specify particular credits. It is important that you find out what level of education is required in your area for the trade you choose.

Under certain circumstances, applicants for apprenticeship who do not have proof of these minimum educational requirements can be evaluated by a Progressive Achievement Test. This test is administered by the Apprenticeship Branch of the Ministry of Colleges and Universities. If you are successful on the test, you will be considered to have acquired sufficient education to begin apprenticeship.

Credits for academic and skill achievement

Academic and skill achievement beyond the level required for a particular trade can often reduce the time spent in apprenticeship.

Your training consultant may recommend to your employer that you be granted a credit of 50 hours toward each apprenticeship period for each trade-related credit you achieved in high school or college. Your consultant may also recommend that you be given similar credit for each academic school grade achieved beyond the prescribed entry level for the trade you have selected. Usually, seven credits make up one academic grade, with 110 to 120 hours of scheduled classroom instruction involved in each credit. The Apprenticeship Branch training consultant in your area will help you identify these credit subjects.

Find an employer . . . become an apprentice

In order to become an apprentice, you must first find an employer who will agree to train you in your chosen trade during your apprenticeship program. Check with the local Canada Employment Centre for information on job opportunities for apprentices in specific trades or areas of the province. Your training consultant may be able to direct you to an employer who wishes to hire an apprentice. Then, it's up to you!

When you are hired as an apprentice, you are required to sign a contract with your employer which specifies the conditions for work, hours, wages, and training. If you are under 18 years of age, a parent or guardian must also sign the contract, which is a legal agreement between you and your employer. The Apprenticeship Branch retains a copy of this contract.

Throughout your training, your training consultant is available to discuss your training with you and your employer and to ensure adequate training, rates of pay, and working conditions.

Certificate of Apprenticeship and Certificate of Qualification

Upon successfully completing your training periods in Ontario, you are eligible for both the Certificate of Apprenticeship and, in the regulated trades, the Certificate of Qualification. In particular trades, you must write a final examination to qualify for these certificates. Certain of these trades have interprovincial standards, and a mark of 70 per cent or higher on your final examination will entitle you to receive an Interprovincial Red Seal which permits you to practise your trade in any Canadian province without further examination.


Compulsory and voluntary certification

In certain trades, certification is *compulsory*: only holders of the Certificate of Qualification or registered apprentices can practise these particular trades. Compulsory certification trades include electrician, plumber, motor vehicle mechanic, and hairstylist, to name a few.

Trades with *voluntary* certification, such as cook, tool and die maker, farm equipment mechanic, and construction millwright, do not require their practitioners to have a Certificate of Qualification. However, this certificate does indicate that the holder has reached a certain level of skill and expertise in his or her trade.

More information

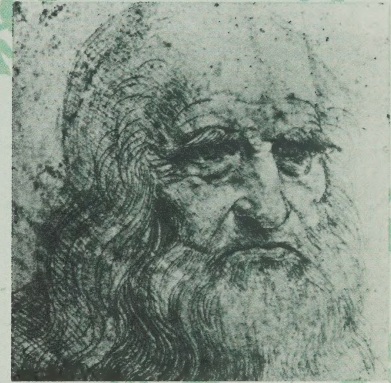
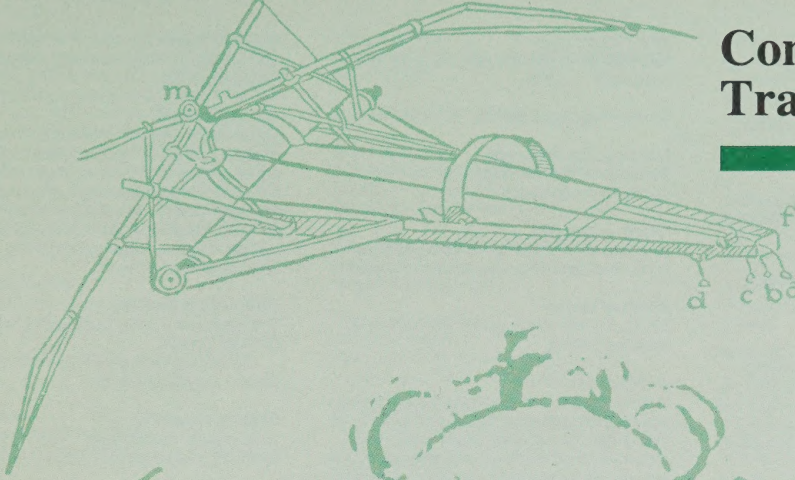
For more detailed information on the apprenticeship system, and specific trades and their training schedules, contact the nearest Apprenticeship Branch office listed at the end of this booklet. But, before you do, read on.



Digitized by the Internet Archive
in 2023 with funding from
University of Toronto

<https://archive.org/details/31761116520248>

Construction Trades



Leonardo da Vinci:

In the year 1467, Leonardo, aged 15, entered the studio of Andrea Verrocchio, the famous Florentine artist-craftsman. It was here that he studied painting, sculpture, and design, and after the customary six-year period of apprenticeship was admitted to the painters' guild of Florence.

It was upon this solid foundation of apprenticeship training that Leonardo's later triumphs were based. His probing mind challenged contemporary thought in the fields of architecture, mathematics, physics, mechanics, anatomy, biology, and civil and military engineering, and raised man's understanding of man to unimagined heights.

Construction Trades Regulated

Brick and Stone Mason

Educational requirements
Grade 8 or equivalent.

Length of program

Four periods of 1400 hours, including one in-school session of 8 weeks and two of 7 weeks.

Minimum wages

40, 60, 70, and 80 per cent of journeyman's wage per period.

Duties and skills

Constructs and erects walls, arches, fireplaces, chimneys, smokestacks, and other items of brick and stone masonry components; lays fire-brick and other refractory materials in walls and arches in the construction of furnaces, or in lining furnaces and retorts, or in enclosing boilers, tanks, and heat-treating furnaces.

Other information

This trade came under voluntary certification in December 1970.

Ontario Regulation 19/76.

Cement Mason

Educational requirements
Grade 8 or equivalent.

Length of program

Three periods of 2000 hours each.

Minimum wages

60, 75, and 90 per cent of journeyman's wage per period.

Duties and skills

Finishes concrete flooring by hand or with mechanical equipment, including the application of curing and surface treatments; carries out all phases of waterproofing and restoration of concrete; rubs up and repairs hardened concrete surfaces; places and finishes epoxy, plastic, and other composition materials; finishes and exposes aggregate in pre-cast and architectural concrete.

Other information

This trade came under voluntary certification July 1, 1967.

Ontario Regulation 165/72.

Construction Boilermaker

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 1650 hours, including three in-school sessions of 8 weeks each.

Minimum wages

60, 70, 80, and 90 per cent of journeyman's wage per period.

Duties and skills

Lays out, assembles, and erects boilers, pressure vessels, and heat exchangers, and repairs component parts; reads and understands drawings, specifications, technical literature, and manufacturers' and safety regulations; fits plates, connects steel members, drills, reams, bolts, rivets, welds, and rigs; stress relieves and tests pressure vessels and enclosures using air, water, smoke, and other methods.

Other information

Regulations for this voluntary trade came into force April 12, 1978.

Ontario Regulation 266/78.

Construction Millwright

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 2000 hours, including one in-school session of 8 weeks and two of 7 weeks.

Minimum wages

60, 70, 80, and 90 per cent of journeyman's wage per period.

Duties and skills

Installs, repairs, and maintains mechanical machines, their components, and related devices and systems in industrial plants, commercial and institutional buildings, or construction sites; has a broad knowledge of metallurgy, welding, blueprint reading, and the use of precise measuring instruments.

Other information

This trade came under voluntary certification December 2, 1972.

Ontario Regulation 543/72.

Electrician (Construction and Maintenance)

Educational requirements
Grade 10 or equivalent.

Length of program

Five periods of 1800 hours, including three in-school sessions of 8 weeks each.

Minimum wages

40, 50, 60, 70, and 80 per cent of journeyman's wage per period.

Duties and skills

Lays out, assembles, installs, repairs, maintains, connects, or tests electrical fixtures, apparatus, control equipment, and wiring for systems of alarm, communication, light, heat, or power in buildings or other structures; plans proposed installations from blueprints, sketches, or specifications, or installs panel boards, switch boxes, pull boxes, and other related electrical devices; measures, cuts, threads, bends, assembles, and installs conduits and other types of electrical conductor enclosures that connect panels, boxes, outlets, and other related electrical devices; installs brackets, hangers, or equipment for supporting electrical equipment; installs in or draws electrical conductors through conductor enclosures; prepares conductors for splicing of electrical connections, secures conductor connections by soldering or other mechanical means, or reinsulates and protects conductor connections, or tests electrical equipment for proper function.

Other information

This trade became certified on October 1, 1964; compulsory certification became effective May 1, 1967.

Ontario Regulation 20/76.

Electrician (Domestic and Rural)

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 1800 hours, including three in-school sessions of 8 weeks each.

Minimum wages

40, 50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

Performs the work of an electrician in the construction, erection, repair, remodelling, or alteration of houses, multiple-dwelling buildings containing six or fewer dwellings, or buildings or structures used for farming; performs maintenance to electrical equipment in houses, multiple-dwelling buildings containing six or fewer dwellings, or farms.

Other information

This trade came under compulsory certification October 1, 1964.

Ontario Regulation 20/76.

General Carpenter

Educational requirements
Grade 10 or equivalent.

Length of program

3844 hours minimum, 7200 hours maximum, including two in-school sessions of 10 weeks each.

Minimum wages

40 per cent of journeyman's wage until successful completion of 5 units or 1800 hours of training and appropriate work experience. The wage then rises to 50 per cent until completion of another 5 units or 1800 hours and again to 60 per cent for a similar period. After completion of 15 units or 5400 hours, the apprentice receives 80 per cent of the journeyman wage until completion of all 20 units of training and work experience.

Duties and skills

Does the woodwork in the erection, alteration, or repair of structures; builds and erects forms for concrete; erects scaffolds, runways, and hoisting towers; erects partitions; places door frames and window frames; places joists, nailing-strips, and sleepers; lays floors; prepares walls and ceilings for plastering; makes and places door jambs; fits and fixes mouldings; cleans and sands for interior finish; checks all work with plumb level and square, ensuring proper alignment; installs interior fixtures and kitchen cupboards, and prepares and erects panels; lays out and erects stairs and handrails; fits and fixes hardware; fits doors, windows, and fixtures; weatherproofs outside walls. *Does not include* a lather or cabinet maker.

Other information

This trade came under voluntary certification September 28, 1971.

Ontario Regulation 570/76.

Glazier and Metal Mechanic

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 2000 hours, including two in-school sessions of 7 weeks and one of 8 weeks.

Minimum wages

60, 65, 70, 75, 80, 85, 90, and 95 per cent of journeyman's wage in each half period.

Duties and skills

Performs layout, fabrication, assembly, and installation of extruded frames, hardware, store fronts, wall facings, manual sliding doors, window sashes, manual door closers, automatic

door operators, and curtain walls; performs layout, fabrication, assembly, and installation of suspended glass fronts, stuck glass fronts, auto glass, art glass, aquariums, and similar special products; cuts, fits, and installs glass in wood and metal frames for windows, skylights, store fronts, display cases, building fronts, interior walls, ceilings, tables, and similar surfaces by means of mastic, screws, or decorative mouldings; reads and understands design drawings, manufacturers' literature, and installation diagrams.

Other information

This trade came under voluntary certification August 1, 1970.

Ontario Regulation 34 (as amended by O.R. 408/73).

Ironworker

Educational requirements

Grade 10 or equivalent and 17 years of age.

Length of program

Three periods of 2000 hours, including one in-school session of 8 weeks and two of 7 weeks.

Minimum wages

60, 70, 75, 80, 85, and 90 per cent of journeyman's wages for each *half* period.

Duties and skills

Field-fabricates, assembles, installs, handles, hoists, erects, dismantles, reconditions, adjusts, alters, repairs, or services all structural iron work, pre-cast and pre-stressed concrete, concrete reinforcing materials, ferrous and non-ferrous materials in curtain wall, ornamental and miscellaneous metal work, and all other materials used in lieu thereof, and applies sealants where applicable; moves and places machinery and heavy equipment; reads and understands shop and field drawings used in fabrication and erection, including those taken from original architectural and engineering drawings. *Does not include* the fabrication and assembly of materials in an industrial manufacturing plant.

Other information

This trade came under voluntary certification May 1, 1973.

Ontario Regulation 171/73.

Lather

Educational requirements

Grade 10 or equivalent.

Length of program

Three periods of 1800 hours, including two in-school sessions of 10 weeks each.

Minimum wages

40, 60, and 80 per cent of journeyman's wage per period.

Duties and skills

In the construction or repair of walls, partitions, ceilings, and arches in any structure: installs by tying, nailing, clipping, or welding wire, metal, or wood lath, plaster board, or other materials and accessories to serve as a base for plaster, cement, or acoustic material; erects plastic and light metal studs, frames, and accessories to receive plaster board and wire and metal lath. *Does not include* the manufacture of equipment or the assembly of a unit before delivery to a building, structure, or site, or the repair and maintenance of the installations in an operating industrial plant.

Other information

This trade came under voluntary certification June 1, 1967.

Ontario Regulation 16/76.

Lineman

This trade comprises two branches:

Branch 1 – power lineman

Branch 2 – construction lineman

Educational requirements

Both branches

Grade 10 or equivalent.

Length of program

Power Lineman

Four periods of related training and work experience of 2000 hours each.

Construction Lineman

Three periods of related training and work experience, one of 2500 hours and two of 2000 hours each.

Minimum wages

Power Lineman

40, 50, 60, and 70 per cent of journeyman's wage per period.

Construction Lineman

40, 55, and 70 per cent of journeyman's wage per period.

Duties and skills

Power Lineman

Operates, maintains, and services overhead and underground power lines used to conduct electricity from generating plants to consumers; has knowledge of all trade-related safety practices, rescue techniques, and resuscitation methods; exercises proper use and care of hand and power tools and equipment; installs and removes secondary overhead and underground services and bus, primary conductors, isolating and protective devices, transformers, complete capacitor banks, voltage regulators, and street lighting systems; knows and applies electrical theory, interprets work orders, and makes trade calculations as required.

Construction Lineman

Constructs or assembles a system of power lines used to conduct electricity from generating plants to consumers; has knowledge of all trade-related safety practices, rescue techniques, resuscitation methods, and hand signals; properly maintains and uses trade-related tools, accessories, and equipment; prepares, installs, and removes structure and related workpiece/component, conductors, isolating and protective devices, reclosures, sectionalizers, and switches; knows and applies electrical theory and rigging principles, and makes necessary calculations; interprets work orders.

Other information

Both branches of this trade came under voluntary certification November 20, 1979.

Ontario Regulation 862/79.

Painter

This trade comprises two branches:

Branch 1 – commercial/residential

Branch 2 – industrial

Educational requirements

Both branches

Grade 10 or equivalent.

Length of program

Commercial/Residential

Three periods of related training and work experience of 1800 hours each.

Industrial

Two periods of related training and work experience of 1800 hours each.

Minimum wages

Commercial/Residential

50, 65, and 80 per cent of journeyman's wage per period.

Industrial

60 and 80 per cent of journeyman's wage per period.

Duties and skills

Commercial/Residential

Prepares and performs interior and exterior work to plaster, wallboard, wood, metal, concrete masonry, stucco, and allied materials; erects scaffolding, including swing stage; prepares and works with steam wallpaper stripping machines, and applies wall coverings, wallpaper, grass cloth, wood veneer, vinyl fabrics, and allied materials.

Industrial

Prepares and performs interior and exterior work to plaster, wallboard, wood, metal, concrete masonry, stucco, and allied materials; erects scaffolding, including swing stage; prepares and performs work by mechanical processes, blow torches, spray guns, and sand-blasting.

Other information

Both branches of this trade came under voluntary certification December 25, 1976.

Ontario Regulation 378/81.

Plasterer

Educational requirements

Grade 8 or equivalent.

Length of program

Four periods of 1600 hours, including one in-school session of 8 weeks and two of 7 weeks.

Minimum wages

40, 50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

Applies plaster and stucco to the walls and ceilings, whether interior or exterior, of a structure; applies plaster and stucco on lath, masonry, and rigid insulation; tapes gypsum panels and wallboard.

Other information

This trade came under voluntary certification in December 1970.

Ontario Regulation 43/70.

Plumber

Educational requirements

Grade 10 or equivalent.

Length of program

Five periods of 1800 hours, including one in-school session of 8 weeks and two of 7 weeks.

Minimum wages

40, 50, 60, 70, and 80 per cent of journeyman's wage per period.

Duties and skills

Lays out, assembles, installs, maintains, or repairs in any structure, building, or site, piping, fixtures, and appurtenances for the supply of water for any domestic or industrial purpose, or for the disposal of water after it has been used for a domestic or industrial purpose; connects to piping any appliance that uses water supplied to it or disposes of waste; installs the piping for any process, including the conveyance of gas, or any tubing for a pneumatic or air-handling system; makes joints in piping; reads and understands design drawings, manufacturers' literature, and installation diagrams for piping and appliances connected thereto. *Does not include* the manufacture of equipment or the assembly of a unit prior to delivery to a building, structure, or site, the laying of metallic or non-metallic pipe into trenches to form sanitary or storm sewers, drains, or water mains, or the repair and maintenance of the installation in an operating industrial plant.

Other information

This trade became certified in 1965.

Ontario Regulation 44 (as amended by O.R. 77/71, 269/71, 410/73).

Refrigeration and Air-conditioning Mechanic

Educational requirements
Grade 10 or equivalent.

Length of program

Five periods of 1800 hours, including one in-school session of 8 weeks and two of 7 weeks.

Minimum wages

40, 50, 60, 70, and 80 per cent of journeyman's wage per period.

Duties and skills

Installs or assembles any component of a refrigerating or air-conditioning system; assembles or connects any pipe or duct used in piping refrigerant or conditioned air; overhauls or repairs any equipment used in refrigerating or air-conditioning systems; tests, adjusts, or instructs in the operation of refrigerating or air-conditioning systems. *Does not include* the repair or installation of hermetically sealed domestic self-contained appliances of not more than 9000 Btu.

Other information

This trade became certified November 1, 1964.

Ontario Regulation 612/73 (as amended by O.R. 177/76).

Sheet Metal Worker

Educational requirements
Grade 10 or equivalent.

Length of program

Five periods of 1800 hours, including one in-school session of 8 weeks and two of 7 weeks.

Minimum wages

40, 50, 60, 70, and 80 per cent of journeyman's wage per period.

Duties and skills

Manufactures, fabricates, assembles, handles, erects, installs, dismantles, reconditions, adjusts, alters, repairs, or services all ferrous and non-ferrous sheet metal work of No. 10 US gauge, or of any equivalent or lighter gauge, and all other materials used in lieu thereof; reads and understands shop and field sketches

used in fabrication and erection, including those taken from original architectural and engineering drawings or sketches. *Does not include* work in production commonly known as mass production.

Other information

This trade became certified October 1, 1965, and came under compulsory certification October 1, 1967.

Ontario Regulation 298/73.

Sprinkler and Fire Protection Installer

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 1800 hours, including two in-school sessions of 7 weeks and one of 8 weeks.

Minimum wages

40, 60, 70, and 80 per cent of journeyman's wage per period.

Duties and skills

Lays out, assembles, installs, tests, and maintains high and low pressure pipeline systems for supplying water, air, foam, carbon dioxide, or other materials to or for fire protection systems; measures, cuts, reams, threads, solders, bolts, screws, welds, or joins all types of piping, fittings, or equipment for fire protection systems. *Does not include* the manufacture of equipment or the assembly of a unit prior to delivery to a building, structure, or site.

Other information

This trade came under voluntary certification January 24, 1976.

Ontario Regulation 420/80.

Steamfitter

Educational requirements
Grade 10 or equivalent.

Length of program

Five periods of 1800 hours, including one in-school session of 8 weeks and two of 7 weeks.

Minimum wages

40, 50, 60, 70, and 80 per cent of journeyman's wage per period.

Duties and skills

Lays out, assembles, installs, maintains, or repairs any heating system, cooling system, process system, or industrial system; installs or connects piping in any building or structure; installs the piping for any process, including a process that conveys gas, or the tubing for any pneumatic or air-handling system; reads and understands design drawings, manufacturers' literature, and installation diagrams for any system referred to. *Does not include* the manufacture of equipment or the assembly of a unit prior to delivery to a building, structure, or site.

Other information

This trade became certified October 1, 1965, and came under compulsory certification October 1, 1967.

Ontario Regulation 124/73.

Construction Trades Non-regulated

Draftsman (Architectural)

Educational requirements
Grade 10 or equivalent.

Length of program

Three periods of 2000 hours each.

Minimum wages

40, 50, and 60 per cent of journeyman's wage per period.

Duties and skills

Prepares drawings showing internal, external, or other architectural features of office blocks, residential structures, and industrial, commercial, and other buildings; prepares preliminary sketches showing proposed internal, external, and other principal features, as directed by architect; makes calculations to determine type and quality of materials required; prepares working drawings showing plans, elevations, sections, and typical details for use on construction site, using a variety of drafting instruments; may estimate quantities of materials required for project and compute costs.

Drywall and Acoustic Mechanic

Educational requirements
Grade 10 or equivalent.

Length of program

Three periods of 1500 hours each.

Minimum wages

50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

Applies wallboard sheets to ceilings and interior walls of buildings; measures area to be covered using straightedge or tape as gauge; cuts sheets to size and cuts out openings; seals joints between wallboards to prepare surface for papering or painting; sands seams and other rough areas of drywall construction, using sanding machine or hand-operated sanding block; installs thermal acoustic insulation and sound absorption materials.

Terrazzo, Tile, and Marble Setter

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 2000 hours each.

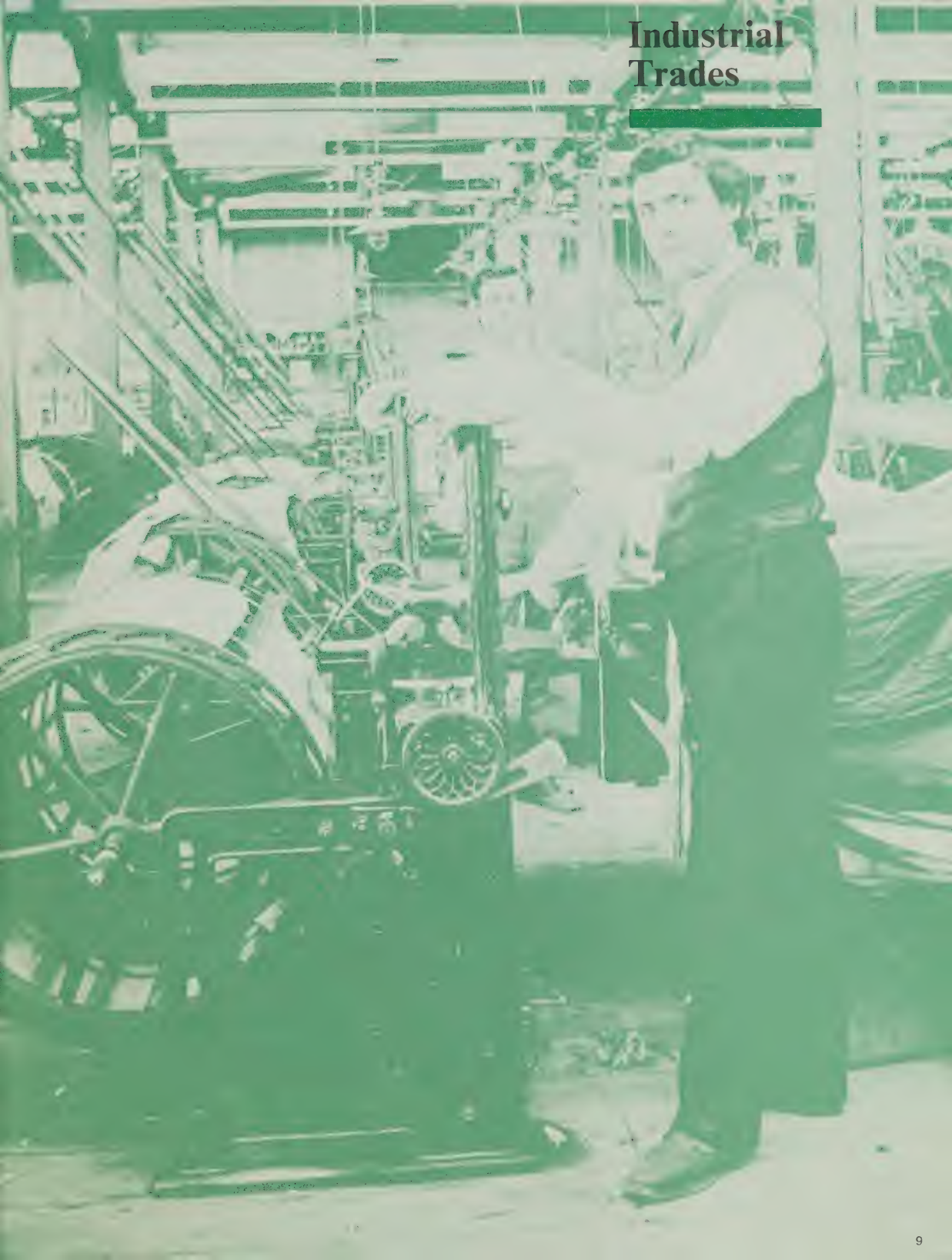
Minimum wages

40, 50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

Installs decorative surfacings composed of cement, sand, pigment or chemical compounds, marble or other aggregates on floors, stairs, and other surfaces; installs reinforcing and underbeds; forms first layer, cuts and installs metal division strips, spreads and trowels top layer; rolls marble or other aggregates into surface; may grout, grind, polish, and seal hardened terrazzo surfaces; sets tiles to surface walls and floors, according to specified designs; applies metal lath, scratch coat, and setting bed; cuts, trims, fits, and installs tiles and required accessories; cuts and sets marble slabs to make ornamental and protective surfaces; installs anchor bolts, wires, and brackets; applies mortar; trims and sets marble slabs in accordance with design drawings.

Industrial Trades



Industrial Trades Regulated

Fitter (Structural Steel/Platework)

Educational requirements
Grade 10 or equivalent.

Length of program

Three periods of 1800 hours, including three in-school sessions of 8 weeks each.

Minimum wages

60, 70, and 80 per cent of journeyman's wage per period.

Duties and skills

Reads and interprets blueprints; performs measuring, checking, and layout operations; assembles metal plates and sections, using tack welding, fasteners, and bolts; uses hand and power tools, including bending and straightening equipment; moves finished products using cranes, slings, or other lifting equipment.

Other information

This trade came under voluntary certification December 1, 1980.

Ontario regulation 990/80.

General Machinist

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of at least 1500 hours (8000 hours maximum), including three in-school sessions of 8 weeks each.

Minimum wages

Starting at 50 per cent of journeyman's wage and increasing by 5 per cent for every 1000 hours of training completed.

Duties and skills

Sets up and operates various types of precision metal-cutting and grinding machines to close tolerances; has a broad understanding of metallurgy; is familiar with the use and care of precision measuring equipment; has a detailed knowledge of blueprint reading.

Other information

This trade came under voluntary certification June 17, 1978.

Ontario Regulation 866/80.

Industrial Millwright

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 2000 hours each.

Minimum wages

60, 70, 80, and 90 per cent of journeyman's wage per period.

Duties and skills

Installs, repairs, and maintains mechanical machines, their components, and related pneumatic and hydraulic systems in industrial plants or specific process areas; has a broad knowledge of metallurgy, welding, blueprint reading, and the use of precision measuring instruments.

Other information

This trade came under voluntary certification September 21, 1979.

Ontario Regulation 685/79.

Mould Maker

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 2000 hours each, including three in-school sessions of 8 weeks each.

Minimum wages

Starting at 50 per cent of journeyman's wage and increasing by 5 per cent for every 1000 hours of training completed.

Duties and skills

Makes, repairs, and modifies moulds, models, and templates, etc.; works to close tolerances and criteria in all operations; has a detailed knowledge of blueprint and drawing interpretation, plastics, and processing methods and equipment; should have a broad understanding of metallurgy and heat treatment, and a working knowledge of the use, care, and operation of machine tools and equipment.

Other information

This trade came under voluntary certification June 17, 1978.

Ontario Regulation 867/80.

Printer

This trade comprises eight branches:

- Branch 1 – letterpress (job shop)
- Branch 2 – lithography (job shop)
- Branch 3 – offset pressman (plant)
- Branch 4 – linotype operator
- Branch 5 – compositor
- Branch 6 – pressman (letterpress)
- Branch 7 – compositor (phototypesetting)
- Branch 8 – compositor and camera technician

Educational requirements

All branches
Grade 10 or equivalent.

Length of program

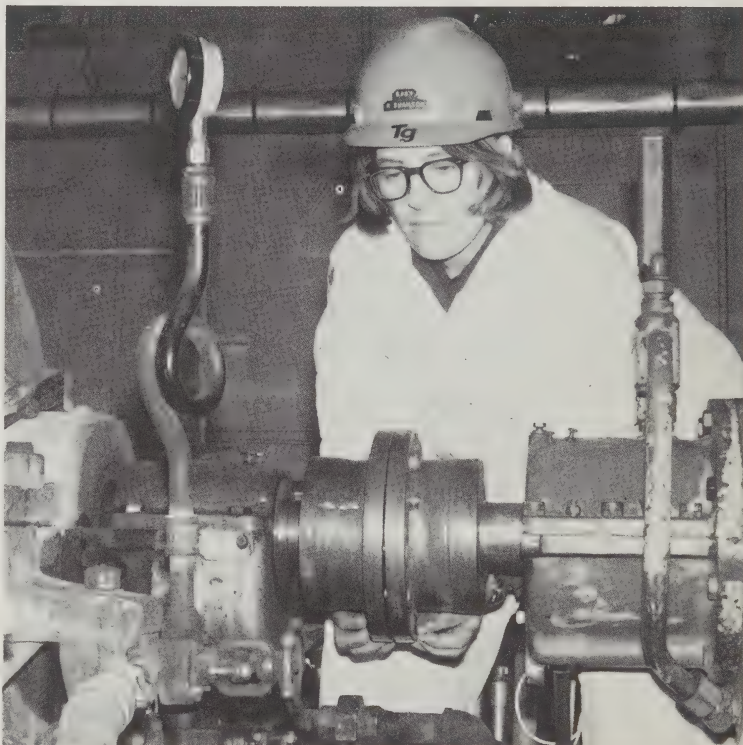
Branches 1-7
Four periods of related training and work experience of 2000 hours each.

Branch 8

Five periods of related training and work experience of 2200 hours each.

Minimum wages

All branches
Not less than the minimum wage prescribed by the Employment Standards Act plus an increase of at least 20 per cent for each period of related training and work experience.



Duties and skills

Branch 1 – Letterpress (Job Shop)

Practises shop safety; performs routine maintenance of equipment; handles paper, ink, and other supplies; composes type; produces, reads, and corrects proofs; makes up pages; uses photoengravings, electrotypes, and rubber and plastic plates; locks up using various methods and techniques; operates printing presses, feed and delivery systems; mixes and matches ink; performs finishing processes in bindery; packages and labels.

Branch 2 – Lithography (Job Shop)

Practises shop safety; prepares photographic and plate-coating solutions; files plates and negatives; handles paper, ink, and chemicals; may plan job; performs layout operations; composes type; uses, reads, and marks proofs; performs camera copy reproduction; applies theory of photography and uses various types of cameras, filters, and techniques of line and half-tone photography; develops film; lays out and strips flats; produces various types of plate; knows about and uses inks; operates and maintains lithographic process printing presses; performs bindery and other finishing operations.

Branch 3 – Offset Pressman (Plant)

Practises shop safety; washes plates; builds up back of plate; installs plate, checks registration, and operates press; removes and cleans plate and cylinders at end of run.

Branch 4 – Linotype Operator

Practises shop safety; operates keyboard-controlled typesetting machine to cast in metal lines of type (slugs) and deposit them in a galley; selects magazine corresponding to specified typeface and size; sets up linotype machine to cast designated type and assemble slugs in galley; removes galley and passes for proof printing; sets new slugs to correct errors as indicated on proof sheet; places pigs of type metal on feed chain of melting pot to replenish supply.

Branch 5 – Compositor

Practises shop safety; sets type by hand or machine, and assembles type and cuts in galleys; determines type size, style, and layout from worksheet; measures copy with gauges to calculate length of line and depth of column; sets composing stick to line length indicated on gauge; selects and sets type in compositional sequence; adjusts spacing; examines symbols made by proofreader and makes any corrections necessary; cleans type after use, and sorts and stores letters and spacers; may operate proof press to take proofs; may set type to print copy that is unaccompanied by specifications, using knowledge of composition and printing processes; carries out bindery and other finishing operations.

Branch 6 – Pressman (Letterpress)

Practises shop safety; performs routine maintenance of equipment; sets up letterpress printing press and colour position; mixes special colour inks; makes pasters and operates paster equipment; inspects and handles paper rolls; operates main level of press and applies knowledge of leads; performs colour setting, including black and colour pages; does folder work, including changing and replacing of slitters, web control, and setting up of straight and collect folders; operates and maintains towers, processors, and punch, bend, and trim equipment.

Branch 7 – Compositor (Phototypesetting)

Practises shop safety; understands hot, cold, and non-metallic composition and colour printing; operates various types of printing presses and binding equipment; handles paper and other printing stock; does advertising artwork and layout; designs business forms; composes

advertising, forms, and books; lays out pages in correct order for press; performs colour separations (before camera); makes plates; interprets proofreader marks and reads proof; operates phototypesetter to include various styles and tabulating.

Branch 8 – Compositor and Camera Technician

Practises shop safety and performs routine maintenance of equipment; prepares photographic solutions, and files negatives, chemicals, and supplies; applies graphic design principles and uses proper equipment and materials to produce rough, composing, and finished layouts; uses phototypesetting, hand lettering, and transfer lettering in layouts and page and display composition; uses mechanical colour, register systems, general assembly ruling, crop marks, and impositions; reads and marks proofs, using accepted marks and symbols, and makes corrections; prepares copy for shooting, figuring reductions and enlargements, and uses various types of cameras; uses equipment and techniques for line photography and half-tone photography; selects proper film and colour-proofing materials for use in contact printing; processes film; performs stripping for presswork, impositions, and supers; has a knowledge of screens and determines percentage dots, morays, and effects; uses various methods of separating for colour printing.

Other information

All branches of this trade came under certification October 18, 1980.

Ontario Regulation 814/80.

Tool and Die Maker

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 2000 hours each, including three in-school sessions of 8 weeks each.

Minimum wages

Starting at 50 per cent of journeyman's wage, increasing by 5 per cent for every 1000 hours of training completed.

Duties and skills

Makes, repairs, and modifies dies, forms, cutting tools, gauges, jigs, and fixtures; works to close tolerances in all phases of job; has a detailed knowledge of blueprint reading and interpretation; should have a broad understanding of metallurgy and a working knowledge of the use, care, and operation of machine tools and related equipment.

Other information

This trade came under voluntary certification June 17, 1978.

Ontario Regulation 868/80.

Industrial Trades Non-regulated

Carpenter (Plant)

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 1800 hours each.

Minimum wages

40, 50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

In an industrial plant or industrial processing area: cuts, shapes, assembles, erects, and maintains various types of wood structures and fittings, using hand and power tools; makes, alters, and repairs structural woodwork and objects, at bench or on location, by performing general carpentry operations such as sawing, planing, fitting, nailing, and glueing; builds, assembles, places, and dismantles concrete forms; cuts, fits, and installs doors, door frames, window frames, staircases, and interior and exterior trim; lays hardwood flooring and floor and ceiling tile; builds scaffolds, walls, floors, partitions, roofs, docks, trusses, and bases for equipment and machines.

Chemical Plant Operator

Educational requirements
Grade 10 or equivalent.

Length of program

Three periods of 2000 hours each.

Minimum wages

40, 50, and 60 per cent of journeyman's wage per period.

Duties and skills

Operates control panels which control distillation trains, chemical reactors, pumps, compressors, and heat exchangers; ensures reactions are controlled according to standard practice; operates and controls filters, blenders, steam, electric, and gas heating devices, decanters, mixers, dryers, pumps, compressors, vacuum jets and pumps, conveyors, fans, and blowers; fills containers, tank cars, tank trucks, and storage tanks; calculates yields, blends, and mixes; inspects and reports on mechanical condition of all equipment used; ensures safe practices and standards are maintained and followed.

Draftsman (Mechanical)

Educational requirements
Grade 10 or equivalent.

Length of program

Three periods of 2000 hours each.

Minimum wages

40, 50, and 60 per cent of journeyman's wage per period.

Duties and skills

Prepares working plans and other technical drawings from sketches or notes for machines, engines, jigs and fixtures, mechanical equipment, and various types of products for engineering, manufacturing, illustrative, and other purposes; checks dimensions of parts, materials to be used, the relation of one part to another, and the relationship of the various parts to the whole unit; prepares finished drawings, making necessary calculations and utilizing knowledge of various machines and engineering manufacturing practices.

Electrician (Plant Maintenance)

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 2000 hours each.

Minimum wages

40, 50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

In an industrial plant: installs conduit, junction boxes, and switches; pulls, insulates, and seals cables; installs, aligns, hooks up, and tests machines; installs lighting, control, communications, and heating systems; maintains, cleans, and repairs starters, switches, controllers, circuit breakers, etc.; overhauls and repairs AC and DC motors and generators; rewinds armatures and stators, and skims and undercuts commutators; carries out static and dynamic balancing, removal, and replacement of bearings, couplings, drives, V-Belts, etc.; aligns bearings, couplings, and drives; tests continuity and insulation; checks and adjusts electronic industrial controls.

Electronics Mechanic (Industrial Control)

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 2000 hours each.

Minimum wages

40, 50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

Installs, tests, calibrates, and repairs electronic control, monitoring, and communications equipment in an industrial plant.

Oil-Burner Mechanic

Educational requirements
Grade 10 or equivalent.

Length of program

Two periods of 1800 hours each.

Minimum wages

40 and 50 per cent of journeyman's wage per period.

Duties and skills

Installs, cleans, repairs, overhauls, adjusts, and removes oil burner installations, and is licensed in accordance with the regulations of the Ontario Ministry of Consumer and Commercial Relations, Energy Safety Branch, Technical Standards Division.

Patternmaker

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 2000 hours each.

Minimum wages

40, 50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

Builds, shapes, or repairs wood and metal patterns to drawings or specifications, using trade-related hand and power tools, woodworking machines, and machine tools; makes or repairs patterns, including die-block patterns, following blocks for die-sinking machines, using gypsum plasters and cements, poured resin, or fibre-glass and resin lay-ups; machines and finishes to drawings or specifications.

Sheet Metal Worker (Plant)

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 2000 hours each.

Minimum wages

40, 50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

In an industrial plant: fabricates, installs, or repairs sheet metal products used for plant maintenance, dust collection, ventilation systems, and plant processes, using trade-related hand and power tools and equipment; selects gauge of materials specified in blueprints and drawings; does the layout, measuring, and planning for efficient shop fabrication; sets up, operates or uses, and maintains power shears, power saws, punch presses, press brakes and rolls, crimpers, drills, grinders, nibblers, and oxyacetylene, arc welding, and spot welding equipment.

Welder (Arc and Gas)

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 2000 hours each.

Minimum wages

40, 50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

Welds metal parts together, according to layouts, blueprints, or work orders, using both gas welding and any combination of arc welding processes such as manual, automatic and semi-automatic, inert gas, and submerged arc; may perform flame-cutting and grinding.

Other information

To weld on boilers, pressure vessels, and pressure piping, it is necessary to pass Qualification Tests specified by the Ontario Ministry of Consumer and Commercial Relations, Boilers and Pressure Vessels Branch, Technical Standards Division.

Woodworking Machinist

(Cabinet and Furniture)
Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 2000 hours each.

Minimum wages

40, 50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

Sets up and operates a variety of woodworking machines to surface, cut, and shape lumber to fabricate components for wood products, such as cabinets and furniture, according to specifications; verifies dimensions of parts, using gauges and templates; assembles fabricated parts to make cabinets and furniture; applies veneers and plastic laminates, using hand or power tools; may apply finishing materials and trimming hardware; may prepare working drawings or sketches of work to be produced.

Woodworking Machinist (Millwork)

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 2000 hours each.

Minimum wages

40, 50, 60, and 70 per cent of journeyman's wage per periods.

Duties and skills

Sets up and operates a variety of woodworking machines to surface, cut, and shape lumber, and to fabricate parts for wood products, such as doors, door and window frames, and sashes, according to specifications; verifies dimensions of parts, using gauges and templates; assembles fabricated parts to make millwork products, such as doors, sashes, door and window frames, and structural components, using hand and power tools; may prepare working drawings or sketches of work to be produced.



Motive Power Trades

Henry Ford:

He started work in 1879 at the foundry of James Flower and Brothers in Detroit at the princely rate of \$2.50 for a 60-hour week.

It was here that the 16-year-old Henry Ford, as an apprentice machinist, discovered and developed his uncanny understanding of complex machinery and started out on a career



that was to change not only the manufacturing process but also the very lifestyle of the civilized world.

He originated the "assembly line" and perfected the low-cost, high-output method of mass production. Between the years 1909 and 1927 he produced more than 15 million Model T Fords and put a nation on wheels. He was the first man to travel at 90 miles an hour. His pioneering in aviation led to the famous Ford Trimotor aircraft, affectionately known as the "Tin Goose", the inauguration of the first commercial airline in the United States, and the development of direction-finding radio beacons for safer aircraft navigation.

Motive Power Trades Regulated

Credits for academic achievement

Credits for academic achievement and relevant courses will be granted to those wishing to train as apprentices in the Motive Power Trades. The hours to be credited will be determined by an Industrial Training Consultant of the Apprenticeship Branch and a prospective employer after a review of the applicant's academic record.

Air-cooled and Marine Engine Mechanic

This trade comprises four branches:

- Branch 1 – small engine mechanic
- Branch 2 – marina and small powered equipment mechanic
- Branch 3 – small engine mechanic (construction)
- Branch 4 – boat motor mechanic

Educational requirements

All branches
Grade 10 or equivalent.

Length of program

Branches 1-3
Two periods of 2000 hours each, including two in-school sessions of 10 weeks each.

Branch 4

Four periods of 1800 hours each, including two in-school sessions of 10 weeks each.

Minimum wages

All branches
Not less than the minimum wage prescribed by the Employment Standards Act plus an increase of at least 20 per cent for each period of related training and work experience.

Duties and skills

Branch 1 – Small Engine Mechanic

Using hand tools, repairs small air-cooled gasoline engines used to power lawnmowers, snowblowers, chainsaws, garden tractors, snowmobiles, portable pumps, and generator sets; locates causes of trouble, using hand tools and instruments; dismantles engines and examines for defects; replaces or repairs and reconditions parts, using hand or power tools; cleans, overhauls, repairs, and adjusts carburetors and fuel systems, coil and magneto ignition systems, electrical systems, power trains, and associated components; tests performance of repaired or overhauled engines, components, and units.

Branch 2 – Marina and Small Powered Equipment Mechanic

Tests and inspects, locates faults in, maintains, repairs, overhauls, and prepares for storage small air-cooled gasoline engines used to power motor boats and small powered equipment, using instruments and hand and power tools; performs similar work on water-cooled marine engines and stern drive units; cleans, overhauls, repairs, and adjusts carburetors and fuel systems, coil and magneto ignition systems, electrical systems, power trains, and associated components; tests performance of repaired or overhauled engines, components, and units; tests, adjusts, maintains, and performs minor repairs to electric system of auxiliary power generating units; cleans, maintains, repairs, and refinishes wooden, aluminum, and fibreglass boat hulls and fittings.

Branch 3 – Small Engine Mechanic (Construction)

Repairs small air- and water-cooled internal combustion engines used to power construction

tools and equipment: chainsaws, small tractors, portable pumps, air compressors, and generator sets; locates causes of trouble, using hand tools and instruments; dismantles engines and examines for defects; replaces or repairs and reconditions parts, using hand or power tools; cleans, overhauls, repairs, and adjusts carburetors and fuel systems, coil and magneto ignition systems, electrical systems, power trains, and associated components; tests performance of repaired or overhauled engines, components, and units.

Branch 4 – Boat Motor Mechanic

Installs, repairs, adjusts, overhauls, or converts gasoline and diesel boat motors, clutches, gearboxes and reduction gears, shafts, propellers, steering gear, controls, instruments, and fuel, ignition, electrical, cooling, and exhaust systems; may also install marine hardware, holding tanks, and water and fire protection systems; carries out water tests of boats to ensure correct and safe operation of all equipment to comply with regulations; prepares boats, motors, and related systems and equipment for storage.

Other information

All branches of this trade came under voluntary certification July 5, 1980.

Ontario Regulation 746/80.

Alignment and Brakes Mechanic

Educational requirements
Grade 10 or equivalent.

Length of program

Three periods of 1800 hours, including two in-school sessions of 8 weeks each.

Minimum wages

50, 70, and 90 per cent of journeyman's wage per period.

Duties and skills

Adjusts, maintains, and repairs suspension and brake systems, wheels, rims, tires, and tubes; balances wheels; inspects frame alignment and realigns as necessary.

Other information

This trade came under compulsory certification April 1, 1969.

Ontario Regulation 19/70.

Auto Body Repairer

Educational requirements
Grade 8 or equivalent.

Length of program

Four periods of 1800 hours, including one in-school session of 8 weeks and one of 7 weeks.

Minimum wages

50, 60, 80, and 90 per cent of journeyman's wage per period.

Duties and skills

Hammers out dents in body panels, fenders, and skirting; files, grinds, sands, fills, and finishes ready for priming any dented, welded, or pieced area; shrinks or stretches metal panels by heat treatment; welds breaks in body area; tests for and corrects faulty alignment of frame; paints and glazes; removes and installs body parts.

Other information

This trade became certified in October 1944, and came under compulsory certification October 21, 1946.

Ontario Regulation 20/70.

Automotive Machinist

Educational requirements
Grade 10 or equivalent.

Length of program

Four periods of 1800 hours, including one in-school session of 8 weeks and two of 7 weeks.

Minimum wages

60, 70, 80, and 90 per cent of journeyman's wage per period.

Duties and skills

Reconditions and rebuilds internal combustion engines and associate components, power trains, brake system components, and suspension system components; disassembles, cleans, inspects, reconditions, and adjusts crankshafts, camshafts, drive shafts, cylinder heads, cylinder blocks, manifolds, and flywheels; balances rotating parts, fits pins, grinds and turns brake drums and brake discs, and faces brake shoes; bores and sleeves cylinder blocks, rebore and finishes engine cylinders, reconditions connecting rods, services valve trains, resizes pistons, and aligns borings; welds crankshafts and cams, and metalizes engine parts; tests cylinder blocks, manifolds, cylinder heads, and engine; rebuilds engine components and parts.

Other information

This trade came under voluntary certification April 1, 1969.

Ontario Regulation 864/80.

Automotive Painter

Educational requirements
Grade 8 or equivalent.

Length of program

Two periods of 1800 hours, including one in-school session of 8 weeks.

Minimum wages

60 and 80 per cent of journeyman's wage per period.

Duties and skills

Refinishes painted surfaces of automobile and truck bodies and anodized aluminum moulding; mixes paint and matches colours.

Other information

This trade came under voluntary certification April 1, 1969.

Ontario Regulation 102/69.

Farm Equipment Mechanic

Educational requirements
Grade 10 or equivalent.

Length of program

Five periods of 1800 hours, including one in-school session of 14 weeks and two of 8 weeks.

Minimum wages

50, 60, 70, 80, and 90 per cent of journeyman's wage per period.

Duties and skills

Inspects, disassembles, adjusts, repairs, overhauls, assembles or reassembles, and tests tractors, machinery, and other equipment used in farming operations other than motor vehicles and trailers registered for use on a highway under the Highway Traffic Act.

Other information

This trade came under voluntary certification October 5, 1971. This Apprentice Training Program replaces the Farm Machinery Servicing Program previously offered by the Ontario Department of Agriculture and Food at the Ontario Agricultural College, Guelph, to trainees selected and sponsored by farm equipment dealers.

Ontario Regulation 395/71.

Fuel and Electrical Systems Mechanic

Educational requirements
Grade 10 or equivalent.

Length of program

Three periods of 1800 hours, including two in-school sessions of 8 weeks each.

Minimum wages

50, 70, and 90 per cent of journeyman's wage per period.

Duties and skills

Repairs and adjusts fuel systems; installs, repairs, and removes ignition systems, generators, alternators, starters, coils, panel instruments, wiring, and other electrical systems and equipment; performs a complete tune-up of an engine; installs, inspects, maintains, and removes motor vehicle air-conditioning systems.

Other information

This trade became certified in October 1944, and came under compulsory certification October 21, 1946.

Ontario Regulation 32/70.

Heavy Duty Equipment Mechanic

Educational requirements
Grade 10 or equivalent.

Length of program

Five periods of 1800 hours, including one in-school session of 12 weeks and two of 7 weeks.

Minimum wages

50, 60, 70, 80, and 90 per cent of journeyman's wage per period.

Duties and skills

Disassembles, adjusts, repairs, and reassembles all heavy duty equipment components and systems, including suspensions for tracked vehicles, attachments, and ancillaries used in construction, logging, mining, and farming operations, and tests them for serviceability. A person holding a Certificate of Qualification in this trade is authorized to service, repair, overhaul, and inspect heavy duty equipment for which a permit has been issued to operate on a highway under the terms of the Highway Traffic Act.

Other information

This trade came under voluntary certification April 1, 1969.

Ontario Regulation 419/80.

Motorcycle Mechanic

Educational requirements
Grade 10 or equivalent.

Length of program

Three periods of 1800 hours, including two in-school sessions of 8 weeks each.

Minimum wages

50, 70, and 90 per cent of journeyman's wage per period.

Duties and skills

Inspects, disassembles, adjusts, repairs, and reassembles engines, power trains, suspensions, and all systems of motorcycles, and tests them for serviceability.

Other information

This trade came under compulsory certification April 1, 1969.

Ontario Regulation 865/80.

Motor Vehicle Mechanic

Educational requirements
Grade 10 or equivalent.

Length of program

Five periods of 1800 hours, including three in-school sessions of 8 weeks each.

Minimum wages

50, 60, 70, 80, and 90 per cent of journeyman's wage per period.

Duties and skills

Disassembles, adjusts, repairs, and reassembles engines, transmissions, clutches, rear ends, differentials, brakes, drive shafts, axles, and other assemblies; tests for and corrects faulty alignment of wheels and steering mechanisms, manual or power; repairs or replaces suspension systems, including shock absorbers and spring assemblies; installs, repairs, and removes ignition systems, generators, alternators, starters, coils, panel instruments, wiring, and other electrical systems and equipment; repairs and adjusts fuel systems; performs complete engine tune-ups; installs, inspects, maintains, and removes motor vehicle air-conditioning and refrigeration systems.

Other information

This trade was introduced in Ontario in 1928, certified in 1937 under The Apprenticeship Act, and came under compulsory certification October 21, 1946. An alternative program, while open to Grade 10 graduates, is particularly suited to applicants with Grade 12; enrolment is limited. The program comprises an initial 40-week (1600-hour) in-school session, followed by one period of 768 hours and three periods of 1184 hours each. The apprentice receives unemployment or training allowances for the first 1600 hours (the in-school session), 60 per cent of a journeyman's wage during the second period of 768 hours, then 70, 80, and 90 per cent of a journeyman's wage in succeeding periods.

Ontario Regulation 464/80.

Service Station Attendant

Educational requirements
Grade 8 or equivalent.

Length of program

Two periods of 1800 hours, including one in-school session of 8 weeks.

Minimum wages

60 and 80 per cent of journeyman's wage per period.

Duties and skills

Lubricates vehicles; maintains cooling systems, batteries, lights, horns, miscellaneous circuits, spark plugs, belts, and hydraulic levels; replaces complete exhaust systems or parts; repairs tires and tubes, and balances wheels.

Other information

This trade came under voluntary certification April 1, 1969.

Ontario Regulation 103/69.

Transmission Mechanic

Educational requirements
Grade 10 or equivalent.

Length of program

Three periods of 1800 hours, including two in-school sessions of 8 weeks each.

Minimum wages

50, 70, and 90 per cent of journeyman's wage per period.

Duties and skills

Repairs clutches, standard and automatic transmissions, and drive shafts; is familiar with engine operation in relation to its correct functioning with these components.

Other information

This trade came under compulsory certification April 1, 1969.

Ontario Regulation 49/70.

Truck-Trailer Repairer

Educational requirements
Grade 10 or equivalent.

Length of program

Three periods of 1800 hours, including two in-school sessions of 8 weeks each.

Minimum wages

50, 70, and 90 per cent of journeyman's wage per period.

Duties and skills

Repairs trailer suspension systems, frames, brakes, and electrical systems; performs basic trailer body repair and maintenance of refrigeration equipment.

Other information

This trade came under compulsory certification April 1, 1969.

Ontario Regulation 50/70.

Service Trades



Service Trades Regulated

Baker

This trade comprises two branches:

Branch 1 – junior baker

Branch 2 – baker

Educational requirements

Junior Baker

Grade 8 or equivalent.

Baker

Grade 10 or equivalent.

Length of program

Junior Baker

One period of 2000 hours, including one in-school session of 15 weeks.

Baker

Three periods of 2000 hours, including two in-school sessions of 15 weeks each.

Minimum wages

Junior Baker

65 per cent of journeyman junior baker's wage.

Baker

65, 75, and 85 per cent of journeyman baker's wage per period.

Duties and skills

Junior Baker

Prepares ingredients, straight dough, different types of fermented goods, pies, sweet and puff paste goods, cookies, creams, cakes, icings and fillings, muffins, tea biscuits, and doughnuts; assists in bakery formulation and fermentation processes; has knowledge of sanitation and safety equipment.

Baker

Supervises bakery formulation, fermentation, stock control, receiving and issuing, product costing, ingredient and material purchasing, and decorating and specialty work; has knowledge of sanitation and safety equipment; prepares flour and sugar, cocoa and chocolate, puddings and desserts, pastry and chaux paste, bread and rolls, icings and fillings, and cakes and creams.

Other information

Both branches of this trade came under voluntary certification April 12, 1978.

Ontario Regulation 265/78.

Cook

This trade comprises two branches:

Branch 1 – assistant cook

Branch 2 – cook

Educational requirements

Both branches

Grade 10 or equivalent.

Length of program

Assistant Cook

One period of 2000 hours, including one in-school session of 15 weeks.

Cook

Three periods of 2000 hours, including two in-school sessions of 15 weeks each.

Minimum wages

Assistant Cook

65 per cent of journeyman assistant cook's wage.

Cook

65, 75, and 85 per cent of journeyman cook's wage per period.

Duties and skills

Assistant Cook

Prepares and assembles complete breakfasts, short order grills, sandwiches, simple salads, simple desserts, vegetables, and non-alcoholic beverages; carves cooked meats, poultry, and game; has a working knowledge of table service, soups and sauces, weights and measures, hygiene, equipment handling, sanitation, and safety.

Cook

Prepares and assembles complete meals, short order grills, sandwiches, vegetables, hot and cold buffets, salads and dressings, desserts, and non-alcoholic beverages; carves cooked meats, poultry, fish, and game; has a working knowledge of table service, soups and sauces, weights and measures, hygiene, equipment handling, sanitation, and safety; has a knowledge of stock control, receiving, issuing, menu planning, and food costing and purchasing.

Other information

Assistant Cook

This is a new trade which came under voluntary certification November 17, 1976. Graduates of the assistant cook trade may apply the time spent in this program toward the cook training program should they wish to continue their studies.

Cook

This trade came under voluntary certification November 1, 1964.

Ontario Regulation 791/77.

Dry Cleaner

Educational requirements

Grade 10 or equivalent.

Length of program

Four periods of 900 hours each, including a correspondence course for related in-school training.

Minimum wages

40, 50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

Operates machine(s) to dry clean, with chemical solutions, clothing, textile furnishings, and similar articles; may sort articles according to colour and condition and type of material, and remove spots or stains by rubbing them with solvent; may filter solution after use to make it fit for re-use; when machine cleaning is unsuitable or unavailable, cleans by hand with a chemical solution; examines articles to ascertain condition and type of material and decides on type of treatment to be given; may clean upholstered furniture; removes, with chemical solution or substance, spots and stains from clothing, textile furnishings, leather goods, and similar articles; may wash articles before removing spot or stain; smooths and shapes clothing, textile furnishings, and similar articles by means of a pressing machine.

Other information

This trade came under voluntary certification February 1, 1967.

Ontario Regulation 30/70.

Hairstylist

This trade comprises three branches:

Branch 1 – barber

Branch 2 – hairdresser

Branch 3 – hairstylist

Educational requirements

All branches

Grade 9 or equivalent.

Length of program

Barber and Hairdresser

Three periods of 1500 hours per period, including two in-school sessions of 8 weeks each.

Hairstylist

Three periods of 1580 hours per period, including three in-school sessions of 8 weeks each.

Minimum wages

All branches

50, 70, and 90 per cent of journeyman's wage per period.

Duties and skills

All branches

Tints, bleaches, or dyes hair; shampoos hair and scalp; gives hair and scalp treatments; cleans or dresses artificial hair pieces; cuts and trims hair; curls or waves hair by any means; combs or brushes hair; shapes, colours, or treats eyebrows or eyelashes; performs any other operation with respect to dressing hair to obtain an intended effect or according to a particular style. In addition, Branch 1, barber, shaves or trims beards or moustaches; Branch 2, hairdresser, gives facials and manicures and applies make-up; Branch 3, hairstylist, performs all of the above.

Other information

A person may also become a barber, hairdresser, and/or hairstylist by registering with a licensed private school and paying the tuition fee. A list of schools in Ontario is available from the Apprenticeship Branch.

The new regulation for hairstylist came into effect December 31, 1978.

Ontario Regulation 949/78.

Radio and TV Service Technician

Educational requirements

Grade 10 or equivalent.

Length of program

Four periods of 2000 hours, including two in-school sessions of 18 weeks each.

Minimum wages

40, 50, 60, and 80 per cent of journeyman's wage per period.

Duties and skills

Installs, adjusts, and repairs radio and television receivers and other domestic electronic equipment; makes adjustments to obtain desired density, linearity, focus, colour, and size of television pictures; isolates and detects defects by the use of schematic diagrams, volt meters, generators, oscilloscopes, and other electronic testing instruments; tests and changes electronic and solid-state components; repairs loose connections and repairs or replaces defective parts by the use of hand tools and soldering irons; understands electronic theory and shop techniques. *Does not include* the manufacture of radio, television, amplifier, or other related electronic equipment; and does not necessarily include the repair and maintenance of such equipment in an industrial plant, nor the wiring of such equipment to an external power source.

Other information

This trade came under voluntary certification December 1, 1966.

Ontario Regulation 221/74.

Services Trades

Non-regulated

Butcher

Educational requirements

Grade 10 or equivalent.

Length of program

Four periods of 1800 hours each.

Minimum wages

40, 50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

Carries out slaughtering, skinning, cleaning, and hanging operations, in accordance with government regulations and acts; bones and trims various types of meat carcasses – i.e., beef, veal, lamb, and pork – into marketable retail cuts; may make various kinds of sausages and prepare special meats and fancy meat products.

Furrier

Educational requirements

Grade 10 or equivalent.

Length of program

Three periods of 2000 hours each.

Minimum wages

50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

Makes, alters, restyles, and repairs fur garments; estimates cost of new garments, alterations, renovations, and repairs; selects and modifies patterns for fur garments to suit customer's size and style preferences; grades, sorts, and matches furs to be used; cuts, joins, lays out, stretches, and trims sewn parts to conform to pattern and design; assembles and sews fur parts and lining to produce finished article; repairs garments by cutting out worn or damaged skins, cutting matching replacement furs to size, and sewing in place.

Horticulturist (Landscape, Nurseryman)

Educational requirements

Grade 10 or equivalent.

Length of program

Three periods of 2000 hours each, including one in-school session of 8 weeks and one of 12 weeks.

Minimum wages

50, 60, and 70 per cent of journeyman's wage per period.

Duties and skills

Manages nurseries and tree farms; maintains turf, trees, and grounds; plans and executes landscaping operations; prepares, drains, and grades terrain; identifies and propagates plants, including greenhouse crop production; controls weeds and insects; has a knowledge of soil types, drainage and irrigation systems, pesticides, surveying, and blueprint reading; may design and construct greenhouses and landscape structures, using concrete, masonry, and wood construction techniques and materials; assists in plant material sales; maintains and operates small and large machinery.

Retail Meat Cutter

Educational requirements

Grade 10 or equivalent.

Length of program

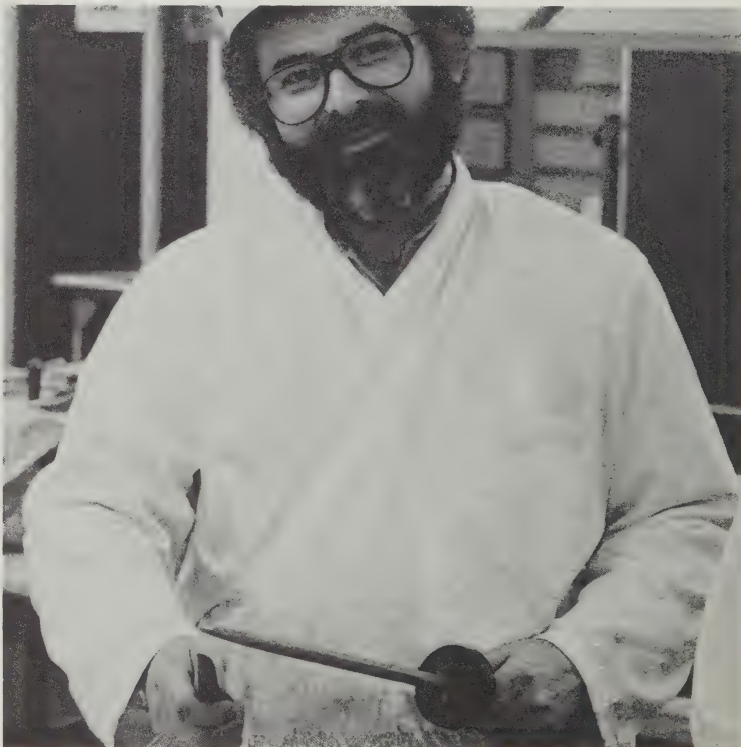
Two periods of 2000 hours each, including one in-school session of 18 weeks.

Minimum wages

50 and 60 per cent of journeyman's wage per period.

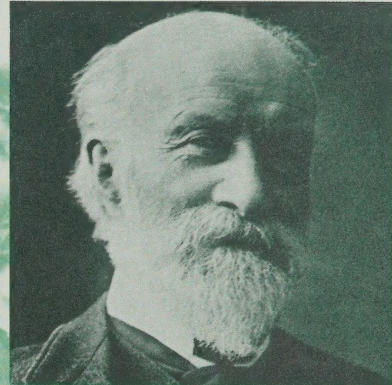
Duties and skills

Bones and trims various types of meat carcasses – i.e., veal, beef, lamb, and pork – into marketable retail cuts; may make various types of sausages and prepare special meats and fancy meat products; may also carry out poultry and fish preparation.



Miscellaneous Non-regulated Trades

Sandford Fleming



The solid foundation provided by his apprenticeship training served as the springboard for his remarkable and audacious career. Principal architect of the Canadian Pacific Railway – “the impossible dream” – he also designed our first postage stamp, brought order to the world’s clocks with Standard Time, charted and proposed the first Pacific cable between Vancouver Island and Australia, co-founded the Royal Canadian Institute, and served as Chancellor of Queen’s University for 35 years.

Miscellaneous Non-regulated Trades

There are training programs for over 200 non-regulated trades in Ontario. Some of the more popular ones are listed here, along with the number of training hours involved in each. Graduate apprentices are awarded Certificates of Apprenticeship as evidence of having attained the journeyman level of knowledge and skill.

New apprenticeship training programs can be developed on request. The programs are usually custom-designed to meet the exact requirements of particular jobs and employers.

Auto Upholsterer
three periods of 1800 hours each

Electro-Plater
four periods of 1800 hours each

Foundryman (Coremaker)
two periods of 2000 hours each

Foundryman (Moulder)
four periods of 2000 hours each

Ironworker (Plant)
three periods of 2000 hours each

Jockey
three periods of 1800 hours each

Optics Technician
(Lens and Prism Maker)
four periods of 2000 hours each

Pipefitter (Industrial)
three periods of 2000 hours each

Plastics Technician
three periods of 2000 hours each

Plumber (Plant)
four periods of 2000 hours each

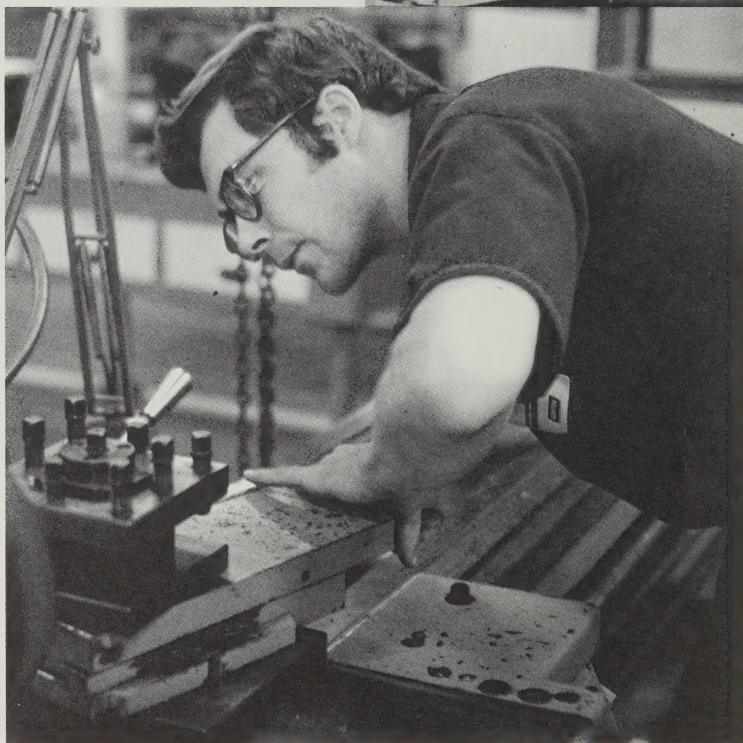
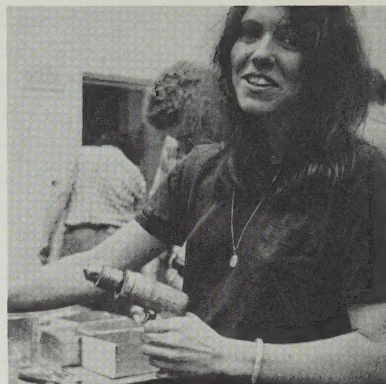
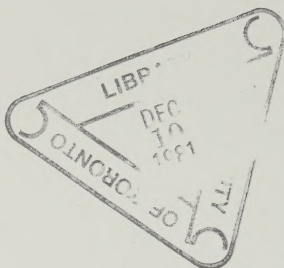
Ship Builder (Joiner)
four periods of 2000 hours each

Ship Builder (Ship Plater)
four periods of 2000 hours each

Steel Mill Worker (Blast Furnace)
four periods of 2000 hours each

Steel Mill Worker (Rolling Mill)
four periods of 2000 hours each

Upholsterer (Furniture)
four periods of 2000 hours each



Apprenticeship Branch Offices

For more information, please contact a training consultant at the Apprenticeship Branch office nearest you.

Barrie	(705) 737-1431
Belleville	(613) 968-5558
Bracebridge	(705) 645-8643
Brantford	(519) 756-5197
Brockville	(613) 342-5481
Chatham	(519) 354-9100
Cornwall	(613) 938-9702
Hamilton	(416) 527-9105
Kenora	(807) 468-3325
Kingston	(613) 547-2271
London	(519) 453-7190
North Bay	(705) 474-5546
Oakville	(416) 842-2454
Oshawa	(416) 576-0171
Ottawa	(613) 731-7100
Owen Sound	(519) 376-5790
Pembroke	(613) 735-3911
Peterborough	(705) 743-4172
St. Catharines	(416) 684-8543
Sarnia	(519) 542-7705
Sault Ste. Marie	(705) 942-4420
Sudbury	(705) 675-4481
Thunder Bay	(807) 475-1605
Timmins	(705) 264-2354
Toronto Central	(416) 965-4211
Toronto East	(416) 750-3533
Toronto West	(416) 233-3281
Windsor	(519) 884-5460
Windsor	(519) 254-8654



Toll-free calling may be available from your area; look under *Government - Ontario* in your telephone book.

Occupational Health and Safety

Information about the Occupational Health and Safety Act, 1978, and related matters is available from the faculties of universities and community colleges throughout Ontario. Occupational Health and Safety Resource Centres are operated by Queen's University, Lakehead University, University of Waterloo, The University of Western Ontario, and the Ontario Ministry of Labour.

Women in skilled trades

YES I CAN!

This short documentary film about successful women apprentices and journey(wo)men helps dispel the male mystique that too often surrounds certain trades. With cheerful good humour, the subjects describe the joys and frustrations of working at traditionally "male" occupations. For more information, telephone Training at (416) 965-5694.

